



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

RB6796946
Job Sheet 196867



Part No: RB6796946

Job Qty: 2 pcs

Part Name: Install & Removal Accessory Gear Box Bearings Drift



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 6/24/19

Job Tracking No:

Created By: Kimberley Guerin

Due Date: 7/29/19

Description:

Type: Stock

Note: DWG RB6796946 Rev 0 IPP Rev. A 19.06.18 New issue DP Verify DD

Ship Via:

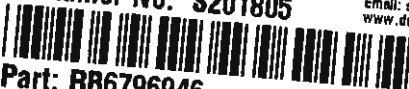
Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard Setup Hrs	Run Hrs	Workcenter/Supplier	Sign-off
100	Purchasing	2 pcs	7/29/19	7/29/19	0.00	0.00	Purchasing - 1	JUL 31 2019
							Purchasing - 2	
							Purchasing - 3	
110	Packaging 2-1 - Receive - B4B	2 pcs	7/29/19	7/29/19	0.00	0.00	Packaging 2 - 1 - B4B	
							Packaging 2 - 2 - B4B	
							Packaging 2 - 3 - B4B	
							Packaging 2 - 5 - B4B	JUL 31 2019
							Packaging 2 - 4 - B4B	
							Packaging 2 - 6 - B4B	
							Packaging 2 - 7 - B4B	
							Packaging 2 - 8 - B4B	
							Packaging 2 - 9 - B4B	
							Packaging 2 - 10 - B4B	
							Packaging 2 - 11 - B4B	
							Packaging 2 - 12 - B4B	
							Packaging 2 - 13 - B4B	
							Packaging 2 - 14 - B4B	
							Packaging 2 - 15 - B4B	
							Packaging 2 - 16 - B4B	
							Packaging 2 - 17 - B4B	
							Packaging 2 - 18 - B4B	
							Packaging 2 - 19 - B4B	
							Packaging 2 - 20 - B4B	
							Packaging 2 - 21 - B4B	
							Packaging 2 - 22 - B4B	
							Packaging 2 - 23 - B4B	
							Packaging 2 - 24 - B4B	
							Packaging 2 - 25 - B4B	
							Packaging 2 - 26 - B4B	
							Packaging 2 - 27 - B4B	
							Packaging 2 - 28 - B4B	



Container No: S201805



Part: RB6796946

Job No: 196867

Serial No/Batch: S201805

Revision: 0

Inspector:

Exp Date:

Instructions:

Date: 07/31/19

Plex 6/24/19 9:17 AM Dart.Guerin.Kimberley

Part Specifications
Specifications could not be found.

Plex 6/24/19 9:17 AM Dart.Guerin.Kimberley



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PURCHASE ORDER

POHB043785



Supplier: ARR002-VU
Arrow Tech Machine Works
29751 E. Enid Road,
Unit C
Eugene, OR 97402 USA
Phone: 541-780-6938
Fax: 458-215-4938

Attention: , Ana
(541) 780-6938

Ship To:

PO No: POHB043785

PO Date: 6/19/19

Due Date: 7/29/19

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Phone:

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	196847	RB6872201P			Prop Flange Puller	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$2,048.20/Ea	\$2,048.20
2	196848	RB6891198P			Wrench	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$1,441.15/Ea	\$1,441.15
3	196849	RB6796966P	RB6796966P		RET. RING, FUEL CTR. DR. PLIER	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$827.00/Ea	\$1,654.00
4	196851	RB6795614P			Puller/Pusher Idler Gear Support Shaft	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$538.00/Ea	\$1,076.00
5	196852	RB6795984P			Power Turbine Holder Shaft	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$721.00/Ea	\$1,442.00
6	196853	RB6872550P			Compressor Rotor Coupler Adapter Holder	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$1,063.00/Ea	\$2,126.00
7	196854	RB23033037P			Holder Compressor Rotor Coupling Adapter	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$1,408.85/Ea	\$1,408.85
8	196855	RB6798981P			Prop Shaft Splined Adapter	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$1,207.45/Ea	\$1,207.45
9	196856	RB6795644P			Bearing Nut Wrench	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$1,387.95/Ea	\$1,387.95



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10	196857	RB6795588P			Wrench-Holding, 32/64 Pitch 24 Tooth Spline	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$910.00/Ea	\$1,820.00
11	196858	RB23005022P	RB23005022P		INR. PWR. TURB. SHFT. MANDREL	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$1,645.40/Ea	\$1,645.40
12	196859	RB6795637P			Adapter	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$894.00/Ea	\$1,788.00
13	196860	RB6895528P			Rear Compressor Bearing Pusher	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$772.35/Ea	\$772.35
14	196861	RB6796949P			Accessory Gear Box Bearings Installation Drift	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$292.00/Ea	\$584.00
15	196862	RB6796948P			Drift Install/Removal Accessories Gear Box	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$310.00/Ea	\$620.00
16	196863	RB6872881P	RB6872881P		COMPR MTG INSERT WRENCH	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$327.00/Ea	\$654.00
17	196864	RB6798986P			Prop Shaft Bearing Puller Plate	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$720.10/Ea	\$720.10
18	196866	RB6798983P			Prop Shaft Assembly Drift	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$209.00/Ea	\$209.00
19	196867	RB6796946P			Install & Removal Accessory Gear Box Bearings Drift	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$353.00/Ea	\$706.00
20	196868	RB6795990P			Dummy Bearing Power Turbine Shaft Front	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$304.00/Ea	\$304.00
2	196869	RB6795993P			Joining And Separating, Power	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$389.50/Ea	\$389.50



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22	196870	RB23034275P			Adapter Pilot Rear Compressor Bearing Puller	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$340.00/Ea	\$340.00
							1 X JUL 30 2019						
23	196871	RB6798880P			Shaft Spanner Nut Wrench	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$1,479.15/Ea	\$1,479.15
							1 X JUL 30 2019						
24	196872	RB6798845P			Turbine 2Nd Stage Spline Adapter	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$1,038.35/Ea	\$1,038.35
			PS				1 X JUL 30 2019						
25	196873	RB6872746P			Puller, Power Train Drive Gear Bearing	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$1,950.00/Ea	\$3,900.00
26	196874	RB6893361P			Power Turbine Coupling Inner Race Puller	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$1,071.60/Ea	\$1,071.60
27	196875	RB6872927P	RB6872927P		RED. GEAR FLANGED STUD WRENCH	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$340.64/Ea	\$681.28
							2 X JUL 30 2019						
28	196876	RB6872477P			Spanner Power Turbine Coupling Inner Nut Wrench	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$579.50/Ea	\$579.50
			PS-				1 X JUL 30 2019						
29	196877	RB6872202P			Prop Shaft Support Fixture	Firmed	-	7/29/19	1 Ea	0 Ea	1 Ea	\$503.50/Ea	\$503.50
							1 X JUL 30 2019						
30	196878	RB6795597P			Spanner Wrench	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$649.00/Ea	\$1,298.00
31	196882	RB6796941P			Seals Replacement, Accessories Gear Box	Firmed	-	7/29/19	2 Ea	0 Ea	2 Ea	\$4,053.00/Ea	\$8,106.00
			PS				2 X JUL 30 2019						
32	196883	RB6798838P			Gas Producer Turbine Tie Bolt	Firmed	-	8/16/19	2 Ea	0 Ea	2 Ea	\$691.00/Ea	\$1,382.00
33	196884	RB6796918P			Install Turbine & Exh Colct Support Oil Bellows Seal Dft	Firmed	-	8/16/19	2 Ea	0 Ea	2 Ea	\$877.00/Ea	\$1,754.00



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34	196885	RB6795594P			Fixture- Assembly, Compressor Rotor	Firmed	-	8/16/19	1 Ea	0 Ea	1 Ea	\$1,519.00/Ea	\$1,519.00
								1 X JUL 30 2019					
35	196886	RB23033029P			Fixture Alignment Compressor Rotor Front	Firmed	-	8/16/19	1 Ea	0 Ea	1 Ea	\$3,962.50/Ea	\$3,962.50
36	196887	RB6895995-4P			Fixture- Alignment Compressor Rotor (2 Piece)	Firmed	-	8/16/19	1 Ea	0 Ea	1 Ea	\$347.70/Ea	\$347.70
37	196888	RB6887819P			Gas Producer & Power Turbine Supports Bearing Bore Checking Fixt	Firmed	-	8/16/19	1 Ea	0 Ea	1 Ea	\$1,711.34/Ea	\$1,711.34
38	196889	RB6872162P			Sump Assembly Pressure Test Fixture	Firmed	-	8/16/19	1 Ea	0 Ea	1 Ea	\$928.62/Ea	\$928.62
39	196890	RB6798925P			Gas Producer 2Nd Stage Wheel Locknut Crimper	Firmed	-	8/16/19	2 Ea	0 Ea	2 Ea	\$1,410.00/Ea	\$2,820.00
40	196895	RB6872880P			Compressor Mounting Inserts Checking Fixture	Firmed	-	8/16/19	2 Ea	0 Ea	2 Ea	\$1,905.00/Ea	\$3,810.00
41	196892	RB6796930P			Accessory Gear Box Install Plate	Firmed	-	8/16/19	2 Ea	0 Ea	2 Ea	\$841.00/Ea	\$1,682.00
42	196893	RB23006778P	RB23006778P		GUIDE SPUR ADAPTER GEAR SHAFT	Firmed	-	8/16/19	3 Ea	0 Ea	3 Ea	\$427.00/Ea	\$1,281.00
			PS					3 X JUL 30 2019					
Grand Total:												\$64,199.49	



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PURCHASE ORDER POHB043785



Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

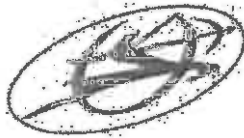
Procurement Quality Clauses

- A005 RIGHT OF ENTRY
- A007 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION MAINTAINED BY SUPPLIER)
- A012 CHEMICAL AND PHYSICAL TEST REPORTS
- A016 PERSONNEL QUALIFICATION
- A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)
- A026 CERTIFICATION OF MATERIAL CONFORMANCE
- A041 QUALITY MANAGEMENT SYSTEM
- A042 DART NOTIFICATION BY SUPPLIER
- A043 RETENTION OF QUALITY DOCUMENT
- A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM
- A049 SUPPLIER AWARENESS

Plex 7/30/19 3:41 PM dart.belanger.natasha

MASTER AB# 8128 4801 7350

6102 0 6 706



**PHGE Machineworks dba
Arrowtech Machineworks**
29751 E Enid Rd.
Eugene, Oregon 97402
Phone: (541) 780-6937
Fax: (458) 215-4938

COMMERCIAL INVOICE

No: 636
PAGE: 1 OF 2

Date: 7/27/2019
PO Ref: HB043785
Ship via: FEDEX
Customer No: 17

SHIP TO ADDRESS:

Dart Aerospace
1270 Aberdeen St.
Hawksbury, ON
CANADA, K6A1K7
Phone: (613) 632-5200

This shipment does not contain hazardous materials.

Qty	Price	Item	Part No.	Total
2 ✓	538.00	PULR PUSHR IDLE GEAR SUP. SHFT	✓RB6795614 ✓	\$ 1,076.00
2 ✓	\$310.00	DFT INS/REM ACC. GEAR BOX	✓RB6796948 ✓	\$ 320.00
2 ✓	\$327.00	COMPRES MTG INSERY WRENCH	✓RB6872881 ✓	\$ 654.00
1 ✓	\$209.00	PROPELLER SHAFT ACC DRIFT	✓RB6798983 ✓	\$ 209.00
1 ✓	\$340.00	ADT PLT REAR COMP BRG PULLER	✓RB23034275 ✓	\$ 340.00
1 ✓	1,479.15	SHFT SPANNER NUT WRENCH	✓RB6798980 ✓	\$ 1,479.15
2 ✓	340.64	RED, GEAR FLGED STUD WRENCH	✓RB6872927 ✓	\$ 681.28
1 ✓	503.5	PROP. SHAFT SUPPORT FIXTURE	✓RB6872202 ✓	\$ 503.50
1 ✓	1,519.00	FXT-ASSBLY COMP ROTOR	✓RB6795594 ✓	\$ 1,519.00
1 ✓	1,441.15	WRENCH	✓RB6891198 ✓	\$ 1,441.15
2 ✓	894.00	ADAPTER	✓RB6795637 ✓	\$ 1,788.00
CONTINUE PAGE 2			TOTAL:	\$ 10,011.08

(HS CODE FOR ALL ITEMS IS 8207195030)

Packaged by:
Checked by:

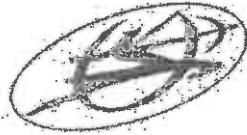
Thank You

RECEIVED

JUL 30 2019

DART AEROSPACE LTD.

MASTER AB# 8128 4801 7350



**PHGE Machineworks dba
Arrowtech Machineworks**
29751 E Enid Rd.
Eugene, Oregon 97402
Phone: (541) 780-6937
Fax: (458) 215-4938

COMMERCIAL INVOICE

No: 636
Page: 2 OF 2

Date: 7/27/2019
PO Ref: HB043785
Ship via: FEDEX
Customer No: 17

SHIP TO ADDRESS:

Dart Aerospace
1270 Aberdeen St.
Hawksbury, ON
CANADA, K6A1K7
Phone: (613) 632-5200

This shipment does not contain hazardous materials.

Qty	Price	Item	Part No.	Total
1 ✓	\$772.35	REAR COMP. BEARING PUSHER	✓ RB6895528 ✓	\$ 772.35
2 ✓	\$292.00	ACC GEAR BOX BRG INSTL DRIFT	✓ RB6796949 ✓	\$ 584.00
1 ✓	\$720.10	PROP. SHAFT BRG PULLER PLATE	✓ RB6798986 ✓	\$ 720.10
2 ✓	\$353.00	INST/REM ACC G/B BRG DRIFT	✓ RB6796946 ✓	\$ 706.00
1 ✓	\$304.00	DUM BRG PWR TURB SHFT FRNT	✓ RB6795990 ✓	\$ 304.00
1 ✓	\$389.50	JOINING/SEPARATING POWER	✓ RB6795993 ✓	\$ 389.50

TOTAL \$ 3,475.95

PAGE 1 TOTAL \$ 10,011.08

PAGE 2 TOTAL \$ 3,475.95

TOTAL: \$ 13,487.03

(HS CODE FOR ALL ITEMS IS 8207195030)

Packaged by:
Checked by:

Thank You

DART
AEROSPACE

H:\forms\Quality Assurance\approved QA\Supplier Deviation Request revNC

DART SUPPLIER DEVIATION REQUEST



D. Corrective Action Taken		E. Preventive Action	
F. DART Approvals	Signature	Date	Approve / Disapprove
Purchasing			
Engineering	<i>M. Lee</i>	July 28, 2019	Approved
Manufacturing			
Quality			
Other			
G. Comments (Completed by DART)			
Drawing Change Required?	Yes ☐	No ☒	If Yes ECN / URF Number:
Supplier Corrective Action Request Required?	Yes ☐	No ☐	If Yes SCAR Number:
It is acceptable to use 4140/4142 in place of 4130/4340. It is acceptable to use 6061 in place of 2024. For the components listed on POHB043785.			

DART SUPPLIER DEVIATION REQUEST



A. Supplier Information		B. Part Information	
Date: 7/25/19		Part Number: See Comment Section	
Name: ArrowTech Machine Works		Description: Precison fit function	
Contact: Gabriel Escobar		Revision: n/a	
Phone #: 541-780-6938		PO Number: HB043785	
Requestor Title: Production Manager		Quantity of parts affected: where applies	
C. Deviation Information			
Deviation Request is:			
Product Related ☒	1st Time ☐	Permenant ☒	Duration _____
Process Related ☐	Repeat ☒	Temporary ☐	
Item	Requested Deviation	Reason for Deviation	
Zinc Plating ASTM B633 Type 1 SC2	Request Black Oxide as per QMSI-6.2.2 B.O. Rev-D	Limit tolerancing on components tighter than spec. on plating.	

DART SUPPLIER DEVIATION REQUEST



D. Corrective Action Taken		E. Preventive Action	
F. APPROVALS	Signature	Date	Approve / Disapprove
Purchasing			
Engineering	<i>M. Lee</i>	July 26, 2019	Approve
Manufacturing			
Quality			
Other			
G. Requirements (Completed by DART)			
Drawing Change Required?	Yes ☐	No ☒	If Yes ECN / URF Number:
Supplier Corrective Action Request Required?	Yes ☐	No ☐	If Yes SCAR Number:
No change to fit, form or function			



ARROW TECH MACHINE WORKS

Certificate of Conformance

Your Purchase Order No: HB043785 ✓

Dated: 7/27/2019

Our Order / Job No: AWT-HB043785 A19

Order Qty: 2 ✓

Part Name: INSTALL & REMOVAL ACCESSORY GEAR BOX BEARING DRIFT

Part Number RB6796946 ✓

Lot Size: N/A

Ship Date: 7/27/2019

We certify that these parts shipped to you are of domestic or international manufacture and conform to all requirements of the Purchase Order. These parts have been manufactured and inspected in accordance with all required specifications, instructions and drawings. Any applicable specifications are listed below:

Drawing Number: RB6796946

Rev: 0

Material Size and Type: 4142 STEEL

Material Specifications: STEEL: ASTM A108

Heat Treatment: 37.0 – 37.0 HRC

Plating/Finish: ZINC PLATE: ASTM B633 TYPE 1 SC 2

Mercury Contamination: The material used to process this order has not come in contact with mercury or mercury bearing instruments.

Date: 7/25/19

Signed: Herbert R. Fahst

PHGE Machine Works LLC dba Arrow Tech Machine Works
29751 E. Enid Rd. Unit C Eugene, Oregon 97402
Main: (541) 780-6938 | Fax: (458) 215-4938
www.atechmachineworks.com